

REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

A. **Status Of Claims / Explanation Of Amendments**

Claims 14, 16-20 and 24-27 are pending. At the outset, the Applicants wish to thank the Examiner for the indication of allowable subject matter in claims 14 and 16-20.

By this paper, claims 24 and 26 have been amended to recite, *inter alia*, that an “angle between an optical axis of light from the light source to the reflector and an optical axis of the projection optical system is larger than 0 degrees and is smaller than 45 degrees.” Support for this amendment is found throughout the originally filed specification, including, for example, paragraphs [0029] and [0042] as well as Figures 1 and 3. No new matter will be added to this application by entry of these claim amendments.

As to claims 24-27, several matters were raised by the Office Action. First, several informalities were alleged to be found in claims 24-27 because it was allegedly unclear to what was being referred by the claim language “an optical axis” of the plane reflector. [11/03/04 Office Action at ¶1]. As described above, claims 24 and 26 now have been amended to recite “an angle between an optical axis of light from the light source to the reflector and an optical axis of the projection optical system is larger than 0 degrees and is smaller than 45 degrees.” Respectfully, this language is asserted to be clear to one of ordinary skill in the art at the relevant time. Withdrawal of the objections is requested.

Second, these claims were rejected on the merits. Claims 26-27 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 6,000,802 to

Appl. No. 10/647,630
Paper dated February 3, 2005
Reply to Office Action dated November 3, 2004

Hashizume et al. (“Hashizume”). [11/03/04 Office Action at ¶3]. Claims 24-25 also were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hashizume in view of “Prior Art” Figure 4. [11/03/04 Office Action at ¶5]. As explained below, these rejections are respectfully traversed.

B. Claims 24-27 Are Patentably Distinguished From Hashizume and “Prior Art” Figure 4

Reconsideration and withdrawal of the rejections of Applicants’ claims 24-27 is requested. Applicants’ claim 24 recites:

Claim 24. An image display apparatus comprising:
a plurality of image display devices;
a polarization converting element which converts a polarization state of light from a light source;
a condensing optical system which converts light from the polarization converting element to a converging light and superposes the converging light on the image display devices;
a color separation optical system which comprises a color separation optical member reflecting a first light in a first wavelength range of the converging light and transmitting a second light in a second wavelength range of the converging light;
a color combination optical system which combines light components from the image display devices;
a projection optical system which projects light from the color combination optical system; and
a reflector which guides a part of light from the light source to the polarization converting element;
wherein angle between an optical axis of light from the light source to the reflector and an optical axis of the projection optical system is larger than 0 degree and is smaller than 45 degrees.

Hashizume, cited by the Office Action, is directed to a projection type display apparatus. A light source (81) and reflector (82) provide a light beam for an integrator optical system (923) that in turn provides light to a light guide system (927). [See Figure 4]. The light

guide system (927) that takes the white light from the integrator optical system (923) and separates it into red, green and blue color beams via liquid crystal light valves (925B, G and R). [Col. 6, lns. 41-51; Figure 4]. Then a prism (910) synthesizes the colored beams and it is projected onto a screen (100) via a projection lens unit (6). [Col. 6, lns. 51-54].

The Office Action alleges that Hashizume's mirror (931) corresponds to the "reflector" recited in Applicants' claim 24 and that Hashizume's integrator optical system (923) corresponds to the "illumination optical system" in Applicants' claim 24. [11/03/04 Office Action at ¶3 (pp. 2-3)]. As can be seen in Figure 4, the mirror (931) is a part of the integrator optical system (923). Accordingly, Applicants' respectfully assert that Hashizume's mirror (931) cannot be fairly said to correspond to "a reflector which reflects a part of light from the light source and guides the part of light to the illumination optical system" as recited in Applicants' claim 24.

At best, it could be argued that Hashizume's reflector (82) corresponds to Applicants' "reflector" recited in pending claim 24. However, Hashizume's reflector (82) has an optical axis which is at a 90° angle with respect to the projection lens unit (6). [See Figure 6]. Accordingly, Hashizume fails to teach, disclose or suggest "wherein an angle between an optical axis of light from the light source to the reflector and an optical axis of the projection optical system is larger than 0 degrees and is smaller than 45 degrees" as recited in Applicants' claim 24.

Likewise, Applicants' "prior art" Figure 4 shows a conventional projection type image display apparatus where white illumination light is emitted from a source (101), is reflected by a reflector (102), passes through a fly eye lens (A103), is further reflected by a mirror (M101), passes through a fly eye lens (B104), a light polarization converting device (105)

Appl. No. 10/647,630

Paper dated February 3, 2005

Reply to Office Action dated November 3, 2004

and a condenser lens (106), and then incident on a dichroic mirror (DM101). Figure 4, however, does not teach, disclose or suggest “wherein an angle between an optical axis of light from the light source to the reflector and an optical axis of the projection optical system is larger than 0 degrees and is smaller than 45 degrees” as recited in Applicants’ claim 24.

Accordingly, Applicants’ claim 24 is respectfully asserted to be patentably distinguished from the cited references. For at least similar reasons, Applicants’ independent claim 26 (“wherein an angle between an optical axis of light from the light source to the reflector and an optical axis of the projection optical system is larger than 0 degrees and is smaller than 45 degrees”) and dependent claims 25 and 27 also are asserted to be patentably distinct from the cited references.

Appl. No. 10/647,630
Paper dated February 3, 2005
Reply to Office Action dated November 3, 2004

CONCLUSION

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 1232-4846US1.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: February 3, 2005

By:


Matthew K. Blackburn
Registration No. 47,428

Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, NY 10154-0053
(212) 758-4800 Telephone
(212) 751-6849 Facsimile